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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CAMPBELL, NATASHA N.	
ART UNIT	**PAPER NUMBER**
1792	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,246	CLASSEN ET AL.	
	Examiner	Art Unit	
	NATASHA CAMPBELL	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *30 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18,20-29 and 31-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18,20-29 and 31-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendments and remarks filed on 03/30/2009 have been acknowledged and entered.

Claims 18, 20-29, and 31-34 are currently pending in the application.

Claims 1-17, 19, and 30 have been canceled.

The objection to the specification has been withdrawn, in view of Applicant's amendments.

The objections to Claims 26, 27, 19, and 30 have been withdrawn in view of Applicant's amendments.

The rejections of Claims 18, 21-24, 26-28, and 31 under 35 U.S.C. 112, second paragraph have been withdrawn, in view of Applicant's amendments.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 25 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 25 recites the limitation "the actual contamination that is detected" in lines 5 and 6. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference to contamination in the claims.

5. Claim 29 recites the limitation "the dishwashing machine" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 29 is an independent claim, in which there is no prior reference to a dishwashing machine.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 18, 20, 22, 24, 26, 27, 29, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Holmes et al. (US 3,756,457).

8. Regarding Claim 18: Holmes teaches a dishwashing machine comprising a washing container for retaining items to be washed (Figure 1, element 11), and a dosing device (Fig. 1, element 10) operable to add an additive product into the dishwasher, the dosing device being operatively connected to an arrangement that separately stores the basic chemical products of an all-around additive product independent of one another (Fig. 1, elements 12 and 13) and the dosing device being operable to add one reaction mixture including the basic chemical products of the additive product (col. 3, lines 1-9).

9. Regarding Claim 20: Holmes teaches that the dosing device includes a micro-reactor operable to produce a reaction mixture that is a liquid mixture (col. 2, lines 48-50). It is understood that the venturi system and mixing chamber disclosed by Holmes

is fully capable of forming the reaction mixture by as a result of a chemical reaction in the event that the products used are chemically compatible to do so.

10. Regarding Claim 22: Holmes further teaches that the dosing device is operable to add in chemical products of the additive product that are stored in a plurality of refillable storage containers (col. 3, lines 40-41) that are configured in the form of individual separate units (Fig. 1, elements 12 and 13).

11. Regarding Claim 24: Holmes further teaches that the dosing device is operable to add in the chemical products of the additive product wherein the chemical products are supplied to both the reactor and the washing container using a conveying device (Fig. 1, elements 30, 31 and 37).

12. Regarding Claim 26: Holmes teaches that the dosing device is operable to add in the chemical products of the additive product while regulating the supply of at least one of the chemical products of the reaction mixture by means of a monitoring device (controller), wherein the dosing device is configured to produce an automatic program interruption in response to a visual or audible fault indication (col. 3, lines 21-41).

13. Regarding Claim 27: Holmes further teaches that the apparatus comprises a plurality of storage containers (Fig. 1, elements 12 and 13). He also teaches that the aspirator tubes (Fig. 1, elements 32 and 33) act as level sensors in that they are disposed in the storage containers at a level such that when the additive product is below a certain level the aspirator tube is no longer immersed in the additive product, breaking the vacuum at the throat of the venture and ceasing the dosing of the product (col. 3, lines 21-30).

14. Regarding Claim 29: Holmes further teaches a method for dosing additives comprising dosing into a dishwashing machine an additive product for application of the product during a dishwashing process , the step of dosing an additive product into the dishwashing machine including dosing, from an arrangement that separately stores the chemical products of an additive product independent of one another, a reaction mixture consisting of the chemical products of the all-round additive product (col. 2, lines 10-20).

15. Regarding Claim 32: Holmes further teaches that the step of dosing into the dishwashing machine an additive product includes dosing in basic chemical products that have been reacted together in a micro-reactor to form a reaction mixture that is a liquid mixture (col. 2, lines 29-50; col. 3, lines 6-9).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes et al. (US 3,756,457).

20. Regarding Claim 23: Holmes teaches the elements of Claim 18, as described above. Holmes further teaches that the dosing device is operable to add in basic chemical products of an all-round additive product that are liquid (col. 2, line 17). He does not specifically teach that the chemical products are powder or granular solids.

21. However, it is understood that the chemical products are stored in the containers (12 and 13) and are drawn by aspirator tubes to the reactor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the apparatus of Holmes is fully capable of supplying chemical products that are powders or granules, as these types of materials can also be delivered by aspiration.

22. Claims 21, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes et al. (US 3,756,457), and further in view of Graf et al. (US 4,188,807).

23. Regarding Claim 27: Holmes teaches the elements of Claim 18, as described above. Holmes does not teach that the dosing device is operable to add into the dishwasher only those basic chemical products or reaction mixtures that are required for a process step.

24. Graf teaches a similar apparatus for dosing chemical products to create a reaction mixture to be subsequently used to clean articles in a washing chamber in which the dosing device is operable to add into the dishwasher only the reaction mixture that is required for a specified cleaning process (col. 8, lines 38-50; col. 9, lines 21-29). He also teaches that substances are metered into the washing container in stoichiometric amounts (col. 11, line 25).

25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Holmes by providing a dosing device operable to add only the products required for the process in order to eliminate wasteful use of the chemicals.

26. Regarding Claim 31: Holmes teaches the elements of Claim 29, as described above. Holmes does not teach that the step of dosing the additive product includes dosing in only those basic chemical products or reaction mixtures that are required for a process step, using a conveying device.

27. As stated before, Graf teaches an apparatus for dosing chemical products into a washing chamber in which the substances needed for the cleaning process are metered and dosed into the washing chamber (col. 8, lines 38-50; col. 9, lines 21-29) in order to avoid unnecessary use of active substances caused by overdosing (col. 7, lines 12-24).

28. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Holmes by introducing only those basic chemicals that are required for the process, as taught by Graf, in order to reduce wasteful use of the chemicals and consequential environmental pollution.

29. Regarding Claim 33: Holmes teaches the elements of Claim 29, as described above. Holmes does not teach that the chemical products are supplied to the reactor and the washing container through a micro-dosing pump.

30. Graf teaches that the active substances are supplied to the pre-mix channel in a metered manner by gear pumps (see col. 9, lines 21-29). The pre-mix channel serves as the reactor where the separate chemicals combine and form a cleaning mixture to be dispensed into the washing container. Further, Graf teaches that by using pumps to meter the wash products, the dosing is accurate, and liquids of varying viscosities can be included (col. 9, lines 24-29).

31. It would have been obvious to one of ordinary skill in the art at the time of invention to supply the chemical products to the micro-reactor in a metered manner, as taught by Graf in the method of Holmes, in order to control the amounts of products being supplied to the wash chamber. It would have been further obvious to use a micro-dosing pump to deliver the products in order to supply small amounts of products, such as in the event a highly concentrated product was being used.

32. Claims 25 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes et al. (US 3,756,457), and further in view of Bashark (3,888,269).

33. Regarding Claim 25: Holmes teaches the elements of claim 18, as described above. Holmes does not teach that the dosing device is operable to add in the products while regulating the addition parameters, time, and quantity of the basic chemical products or the reaction mixture depending on the process steps or based on contamination that is detected.

34. Bashark teaches a control system for dosing detergent in a dishwasher that uses a turbidity sensor to monitor the wash liquid, and controls the timing and addition parameters of the detergent in a dishwashing cycle (col. 3, lines 20-39). He teaches that if after a rinse cycle, the wash liquid continues to be too turbid, no detergent is added, therefore controlling the quantity of detergent being added (col. 9, lines 49-59).

35. Therefore, it would have been obvious to one of ordinary skill in the art to modify the apparatus of Holmes to provide a dosing device operable to regulate the addition parameters, timing, and quantity of the products based on the process step or the contamination detected, as taught by Bashark, in order to prevent unnecessary dosing or an under-dosage of the chemicals.

36. Regarding Claim 34: Similarly, Holmes teaches the method of Claim 18, as described above. He does not teach that the step of dosing includes dosing while regulating the addition parameters, timing, and quantity of the chemical products based on the process step or contamination of the dishes.

37. As stated above, Bashark teaches a method for dosing detergent in a dishwasher responsive to a turbidity sensor that monitors the wash liquid, and controls the timing and addition parameters of the detergent in a dishwashing cycle (col. 3, lines

20-39). He teaches that if after a rinse cycle, the wash liquid continues to be too turbid, no detergent is added, therefore controlling the quantity of detergent being added (col. 9, lines 49-59).

38. Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Holmes by regulating the addition parameters, timing, and quantity of the products based on the process step or the contamination detected, as taught by Bashark, in order to prevent unnecessary and premature product dosing.

39. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes et al. (US 3,756,457) as applied to Claim above, and further in view of McNabb et al. (US 2002/0117511).

40. Holmes teaches the elements of Claim 18, as described above. Holmes does not teach that the dishwashing machine comprises an internet connection with means for automatically notifying a dispatch device concerning the filling level of the storage containers to dispatch chemical products.

41. McNabb teaches a detergent dispensing system in which the filling levels of the storage container are monitored; and further, the dishwasher automatically orders additional supply from the internet when it is almost empty (page 3, [0034]). McNabb teaches that additional product can be requested before the current supply runs out (page 3, [0034]).

42. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a method of notifying a dispatch device, via an internet connection, and requesting additional product accordingly, as taught by McNabb in the

method of Holmes, in order to obtain additional product before the existing product is used up.

Response to Arguments

43. Applicant's arguments, see pages 10-12, filed 03/30/2009, with respect to the rejection(s) of claim(s) 19, 19, 21, 23-25, 29-31, and 34 under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly applied prior art references.

Conclusion

44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATASHA CAMPBELL whose telephone number is (571)270-7382. The examiner can normally be reached on Monday-Friday; 8 AM-4 PM.

45. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571) 272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

46. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit 1792

/nnc/
Examiner, Art Unit 1792
17 June 2009